the continent and as in the preceding case this brought a period of severe cold in Chile and Argentina.

On the 21st a cyclonic disturbance approached from the west in latitude 47° south, and on the 22d there followed another in latitude 37° south, a little to the south of the Juan Fernandez Islands, and then on the following day these two formations were separated by a region of relative high pressure with divergent winds in Chiloe. These formations united on the 24th to form a great cyclone in accord with the laws of Guilbert. During the period from the 25th to the 28th this cyclonic disturbance moved southward, its path passing near the South Shetland and South Orkney Islands into the antarctic sea. All of this period was characterized by heavy storms of rain and wind in southern Chile.

There was a rise in pressure and a return to the anticyclonic weather type during the last two days of the month.

ON THE CHANGES OF TEMPERATURE IN THE LOWER ATMOSPHERE, BY EDDY CONDUCTION AND OTHERWISE

By Prof. S. CHAPMAN, F. R. S.

[Reprinted from the Meteorological Magazine, March, 1925, pp. 34-35]

"It has long been recognized that the daily variation of temperature is due in the main to the heating of the atmosphere by the ground. The process is not completely understood, however. The temperature records which are kept at various heights on the Eiffel Tower provide material for investigating the flow of heat from one level to another. The material has been utilized by G. I. Taylor and by W. Schmidt. Professor Chap man is not satisfied that the results obtained by these workers tell the whole story, and he has made a closer analysis of the statistics. He finds that "eddy conductivity," the only agency considered by Taylor, will only account for half the heat which reaches the upper levels. The conclusion is that radiation plays a more important part than had been suspected. It was urged in the discussion that the methods adopted in the paper did not take account of convection. However that may be, it is clear that there is room for further study of the familiar phenomena of the daily temperature change."

THE HUMBOLDT CURRENT RETURNS TO NORMAL [17]

[Reprinted from Maritime Register of June 10, 1925]

Capt. George S. Dexter, of the Grace liner *Santa Luisa*, reports that the Humboldt Current is getting back to its normal position off the coast of South America after being temporarily shifted offshore by El Niño.

Birds and fish, however, are still fewer in number than formerly. Captain Dexter sailed from Valparaiso May 13, 1925.—*A. J. H.*

[17] See March, 1925, REVIEW, p. 116.

WEATHER BUREAU STAFF MEETINGS, 1924-25

The regular biweekly meetings of the scientific and technical staff of the Central Office of the United States Weather Bureau, initiated in the autumn of 1923,[18] were continued on the same plan during the winter of 1924-25.

The following is a list of the discussions that were held (asterisks denote speakers from outside the bureau):

September 4, 1924

*M. A. GIBLETT: The organization and work of the British Meteorological Office.

*J. BJERKNES: The forecast work of the Bergen Institute, Norway.

October 8, 1924

W. J. HUMPHREYS: Report on meteorological papers read before the Toronto meeting of the British Association for the Advancement of Science and the International Mathematical Congress.

W. R. GREGG: Report on the meeting of the National Aeronautical Association at Dayton, Ohio.

October 22, 1924

*S. J. MAUCHLY: Atmospheric Electricity.

November 5, 1924

*FRANK M. PHILLIPS: Atmospheric Conditions and Comfort.

November 19, 1924

H. H. KIMBALL: Report on the Madrid meeting of the International Union of Geodesy and Geophysics.

December 3, 1924

W. R. GREGG: A review of the recent investigations, by J. H. Field and W. A. Harwood, on the free atmosphere over India.

December 17, 1924

A. J. Henry: Hawaiian Rainfall.

January 14, 1925

*C. G. ABBOT: Results of the Solar Constant determinations at Mt. Harqua Hala, Arizona, and Mt. Montezuma, Chile.

January 28, 1925

*L. W. Austin: Atmospheric disturbances of radiotelegraphy.

February 11, 1925

*F. B. LITTELL: Observations of the total eclipse of January 24, 1925, made from the dirigible *Los Angeles*.

*H. L. CURTIS: Observations of the shadow bands during the total eclipse of January 24, 1925.

W. J. HUMPHREYS: Observations of shadow bands during the total eclipse of January 24, 1925, communicated to the United States Weather Bureau.

February 25, 1925

A. J. HENRY: How shall we define a "cold winter"?

E. W. WOOLARD: The mean variability in random series.

March 11, 1925

C. F. MARVIN and H. H. KIMBALL: The alleged fluctuations of the intensity of solar radiation, and their correlation with the weather.

March 25, 1925

W. W. REED: Foreign Climatic Statistics.

April 8, 1925

*W. ELMER EKBLAW: Northwest Greenland.

April 22, 1925

W. J. HUMPHREYS: Colloidal Meteorology.

May 13, 1925

F. G. TINGLEY: Ocean Temperature Data as collected by the U. S. Weather Bureau.

May 27, 1925

C. F. MARVIN: Present status of the problem of solar radiation and weather forecasting.

Discussion, both formal (prepared beforehand) and informal, followed the presentation of all the above papers.

—*Edgar W. Woolard, secretary.*

[18] See MONTHLY WEATHER REVIEW, 1924, 52: 35-36; 166.